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# DR-BOB

DEMAND RESPONSE IN BLOCKS OF BUILDINGS  
DELIVERABLE: D.6.1 DEVELOPMENT OF PUBLIC WEB  
PORTAL, VIDEO AND PROMOTIONAL MATERIALS

**Authors: Tracey Crosbie and Ethan Lumb**

## Project Consortium



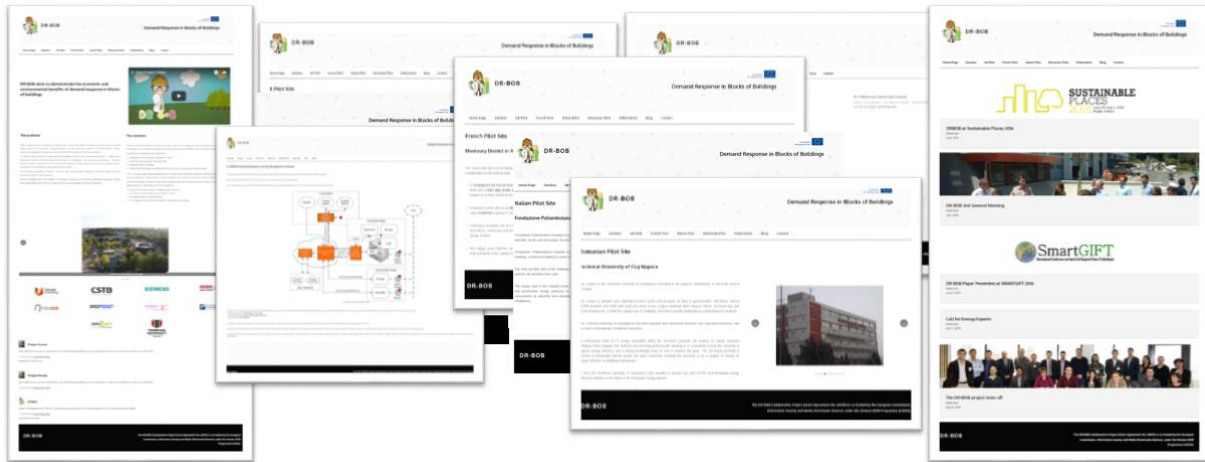
Deliverable Administration & Summary			
D6.1 Development of public web portal, video & promotional materials			
Lead Beneficiary: Teesside University			
Due Date:	31/08/2016	Date of submission	25/08/2016
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Author(s)	Tracey Crosbie (Teesside University) and Ethan Lumb (Teesside University)		
Editor	Tracey Crosbie (Teesside University)		
DoA	<b>Task 6.1 Development of public web portal, video &amp; promotional materials</b> This task will develop: a public web portal; a promotional video; a project leaflet; a project roll-up poster. The public web portal will be developed to communicate/promote the goals and findings of the DR-BOB project. This will involve a dedicated public website which will include social media integration and a short promotional video. The video will consist of an approximately 2-minutes presentation enriched with info-graphics and animations, describing the project objectives and expected impact. The website will include the collection, organisation and collation of simple non-technical explanations of the goals and findings of the project. SIEMENS will design, organise and install the web portal on a web-hosting service. All partners will contribute to simple explanations of the research goals and findings to be presented. Partners will also provide versions of all published materials which arise out of the DR-BOB project for presentation on the web portal. All partners will provide a synopsis of their work in the project which will be presented on the public web portal and all partners will provide links on their organisations' web-site to the dedicated DR-BOB public portal. Case studies will be uploaded demonstrating the deployment and testing phases of the DR-BOB project (WP4). Content management will be led by TU.		
	<b>D6.1 Development of public web portal, video &amp; promotional materials</b> This deliverable includes: <ul style="list-style-type: none"><li>•The DR-BOB public web portal: the web portal will be initiated within the first month of project start date and reviewed and updated every month during the lifetime of the project.</li><li>•The DR-BOB promotional video;</li><li>•The DR-BOB leaflet (electronic PDF version and 1000 hard copies);</li><li>•The DR-BOB roll-up poster to use during events and presentations.</li></ul>		
Contribution of partners	The project website is designed, implemented and maintained by Teesside University. Teesside University also designed the promotional video, project leaflets and project roll-up poster. Dune Works is leading on the development of a project visualisation tool as described in this report. R2M and Teesside University conducted the peer reviews of this written report. R2M also translated the 2 <sup>nd</sup> project leaflet into Italian. All project partners reviewed the designs of all promotional materials and suggested changes. All partners are providing input for the project website. Collaboration in the development of the web portal and dissemination toolkit took place in an interactive iterative process. As such partners' feedback and comments on initial drafts of the website and elements of the dissemination tool kit were used to improve original drafts which were then circulated for further comment. All elements of the dissemination tool kit and the website went through at least three iterations in this process.		
Document change history			
Date	Authors	Description	
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02/08/16	Tracey Crosbie Teesside University	Consolidating input from feedback from project partners	
15/08/16	Tracey Crosbie Teesside University	Incorporating input from peer review	

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## EXECUTIVE SUMMARY

The purpose of this report is to describe the DR-BOB public web portal and the dissemination tool kit developed in the DR-BOB project. These dissemination materials will be used to effectively communicate the objectives and outcomes of the project as detailed in the dissemination plan developed in Task 6.1 Communication and dissemination planning and execution.



Screenshots of DB-BOB public web portal

The DR-BOB public web portal ([www.dr-bob.eu/](http://www.dr-bob.eu/)) was initiated in the first month of the project. It is designed to disseminate the outcomes from the DB-BOB project to relevant stakeholders. It presents a collection of simple non-technical explanations of the goals and findings of the project and is structured in the following way.

- **Home:** This page outlines the problem addressed by the DB-BOB project. A slide show is also presented offering a brief insight into each of the pilot sites. The logo of each of the partners is shown and links to their organisations websites are provided. This page also provides access to the DR-BOB project animated video and links to the DR-BOB twitter account.
- **Solution:** This page illustrates and summarises the main technical output of the project.
- **Pilots:** Each of the four project pilot sites has a dedicated webpage which briefly describes the site and presents a slideshow of images of the pilot site.
- **Publications:** Public deliverables, open access conference papers and journal articles are incrementally uploaded on this page as they become available.
- **Blog:** The blog reports progress, news and events to facilitate user engagement in short articles written by the DR-BOB project partners.
- **Contacts:** This page has a form which enables visitors to ask questions or request information about the project. It also introduces the DB-BOB project coordinator and provides their contact information. The main contact details of each of the partners are provided in addition to a link to their organisations' web sites.

The dissemination tool kit developed in the DR-BOB project consists of the following:

- **A promotional video** which is a three minute animation describing the project's objectives and expected impact;
- **Two project leaflets** designed for different target audiences that are graphically eye-catching and concisely describe the project;
- **A project roll-up poster** to be used at industrial exhibitions and fairs, academic conferences, demos and site visits;
- **A project Twitter account** to advertise dissemination activities as they occur and enable interested stakeholders follow the projects progression;
- **A project visualisation tool** to graphically communicate the DR-BOB demand response solution for blocks of buildings.



DR-BOB dissemination toolkit

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# 1 INTRODUCTION

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## 1.1 AIMS AND OBJECTIVES

The purpose of this report is to describe:

- The DR-BOB project public web portal;
- The processes developed to optimise, manage and update the web portal;
- Other marketing materials developed in the project designed to provide project partners with a comprehensive dissemination tool kit.

The DR-BOB project web portal was initiated in the first month of the project. It is designed to disseminate the projects objectives and outcomes to all relevant stakeholders.

The DR-BOB dissemination tool kit consists of the following:

- **A promotional video** which is a three minute animation describing the project's objectives and expected impact;
- **Two project leaflets** designed for different target audiences that are graphically eye catching and concisely describe the project;
- **A project roll-up poster** to be used at industrial exhibitions and fairs, academic conferences, demos and site visits;
- **A project Twitter account** to advertise dissemination activities as they occur and enable interested stakeholders follow the projects progression.
- **A project visualisation** tool to graphically communicate the DR-BOB demand response solution for blocks of buildings.

## 1.2 TARGET AUDIENCE

This report may be used to inform other projects' dissemination plans. However, its primary target audiences are the DR-BOB Project Officer, the Reviewers of the project appointed by the European Commission and the DR-BOB consortium members. The target audience for the different elements of the dissemination tool kit and the webportal are discussed in DR-BOB Deliverable D 6.3 'Communication & dissemination planning & execution'.

## 1.3 RELATIONS TO OTHER ACTIVITIES IN THE PROJECT

The promotional materials described in this report were informed by the wider work in the project. They will be used to effectively disseminate the objectives and outcomes of the project as detailed in the dissemination plan developed in Task 6.1 'Communication and dissemination planning and execution'.

The dissemination tools described here are also augmented by the development of a list of the contact details of relevant stakeholders in Task 6.2 'Development of a dissemination network'. This list will be used to promote dissemination actions throughout the projects lifetime. The work of Tasks 6.2 and 6.3 are reported in the following deliverables.

- D 6.2 Development of a dissemination network
- D 6.3 Communication & dissemination planning & execution

A project collaboration intranet platform has been developed using Microsoft® SharePoint® as part of the project management (WP1). It provides a number of tools to support communication between project partners. All project marketing materials are stored on this collaboration platform and can be downloaded by project partners for use in their dissemination activities. In addition it should be noted that the development of the project visualisation tool is a horizontal activity which spans the work of WP2, WP3, WP4, WP5 and WP6. Figure 1. DRBOB Project Work packages illustrates the wider activities in the DR-BOB project.

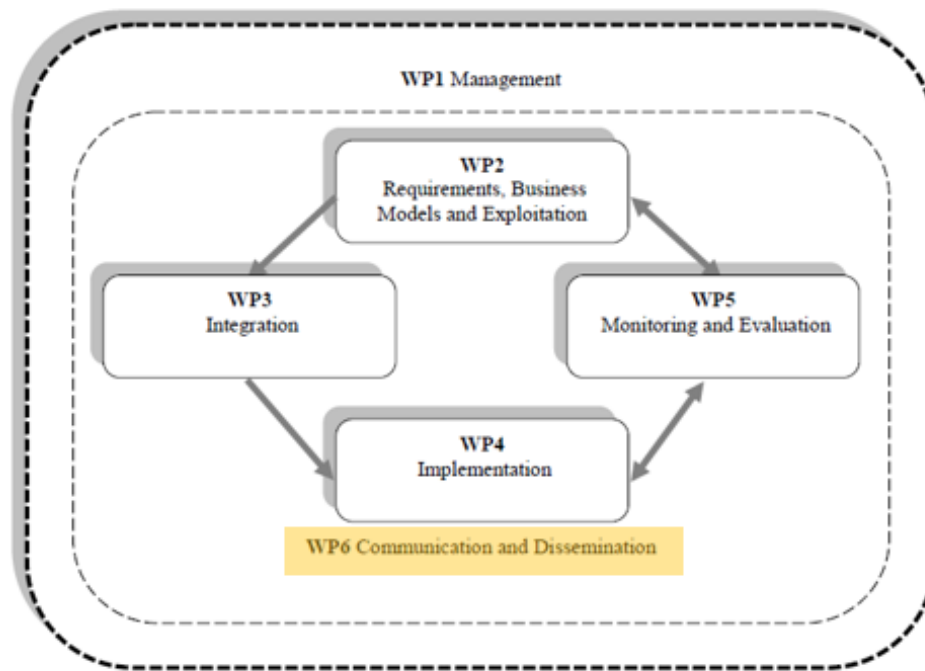


Figure 1. DRBOB Project Work packages

## 1.4 REPORT STRUCTURE

Chapter 2 of this report discusses the structure and content of the DB-BOB public web portal and the processes for optimising, updating and managing it. Chapter 3 describes the dissemination toolkit. Chapter 4 discusses the contribution of the marketing materials described in this report to the DR-BOB project.



## 2 DR-BOB PUBLIC WEB PORTAL

### 2.1 THE ROLL OF THE DR-BOB WEBPORTAL

The project public web portal ([www.dr-bob.eu/](http://www.dr-bob.eu/)) is the main dissemination channel within the DR-BOB consortium communication strategy for the dissemination of the project objectives, achievements and results. As such a dedicated DR-BOB project web portal was setup within the first month of the project (Figure 2). It is the project's main gateway to the outside world, providing detailed information on DR-BOB objectives, partners, technical solutions, results, publications, pilots and success stories.

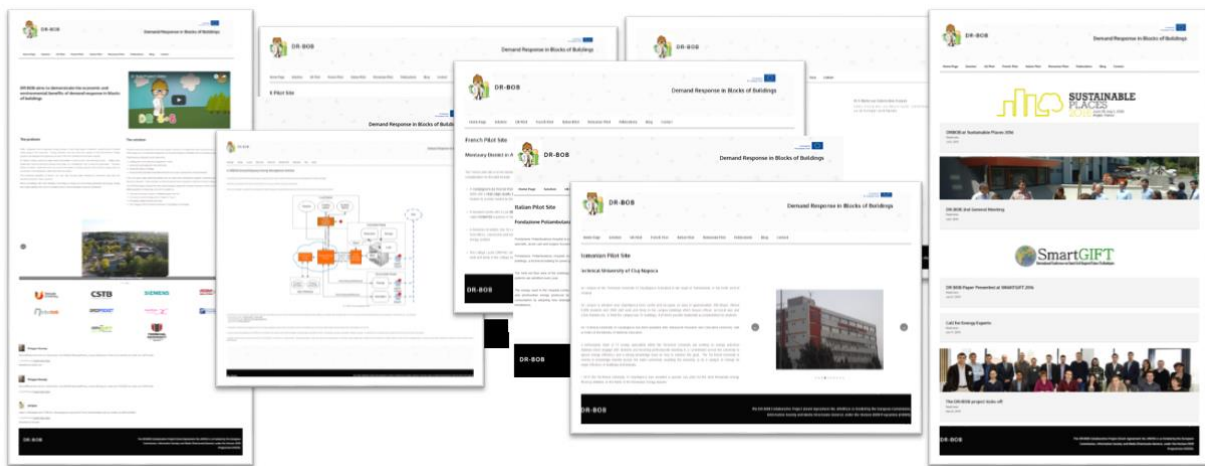


Figure 2. Screenshots of DR-BOB public web portal

### 2.2 THE STRUCTURE OF THE DR-BOB WEBPORTAL

The web portal is structured in the following way.

- **Home:** This page outlines the problem addressed by the DR-BOB project. A slide show is also presented offering a brief insight into each of the pilot sites. The logo of each of the partners is shown and links to their organisation's websites are provided. This page also provides access to the DR-BOB project animated video (see section 3.1 for details of the video) and links to the DR-BOB twitter account.
- **Solution:** This page illustrates and summarises the main technical output of the project.
- **Pilots:** Each of the four project pilot sites has a dedicated webpage which briefly describes the site and presents a slideshow of images of the pilot site.
- **Publications:** Public deliverables open access conference papers and journal articles are incrementally uploaded on this page as they become available.
- **Blog:** The blog reports progress, news and events to facilitate user engagement in short articles written by the DR-BOB project partners.
- **Contacts:** This page has a form which enables visitors to ask questions or request information about the project. It also introduces the DR-BOB project coordinator and provides their contact information. The main contact details of each of the partners are provided in addition to a link to their organisations' web sites.



## 2.3 ENSURING WEB TRAFFIC

### 2.3.1 LINKS ON ESTABLISHED WEBSITES

By having links to a new website on well-established websites it is possible to significantly increase the number of visitors to the new website. Therefore, to make the most out of the traffic on the project partners' existing well-established websites each of them has a link to the DRBOB project web portal (see Figure 3).

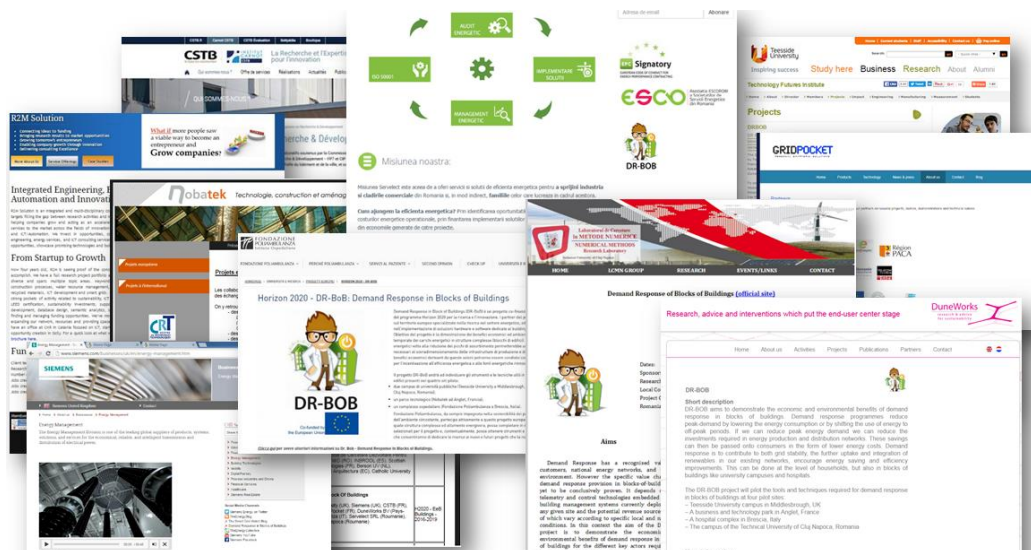


Figure 3. DR-BOB consortium members' public websites with links to the DR-BOB Public web portal

### 2.3.2 USE OF A QR CODE

A Quick Response (QR) is a mobile phone readable bar code. A QR code is used to store the DR-BOB web portal URL and is used on all project posters and leaflets etc., ensuring that those reading this material can quickly and easily access the DR-BOB web portal (see Chapter 3 for details).

### 2.3.3 SEARCH ENGINE OPTIMISATION

To optimise the DB-BOB public web portal visibility a Search Engine Optimisation (SEO) code is utilised. SEO is the process of improving the visibility of a public web portal or a web page in search engine results. In general, the earlier (or higher ranked on the search results page) and more frequently a site appears in the search results list, the more visitors it will receive from the search engine's users.

The SEO also provides indicators that demonstrate the success of dissemination activities. These include:

- **Web statistics:** A statistical analyser (module included in the web portal content management system) counts the number of visitors hourly, daily and monthly by domains. The geographical location of visitors is recorded alongside audience analysis of the behaviour of the site visitors, and also what type of device they used to access the site (PC, Phone etc.).
- **Number of e-mails received** from outside of the consortium: Visitors to the DR-BOB public web portal can contact the consortium directly. The number of e-mails received

(responses to ‘request for comments’ etc.) will indicate the interest of the outside community.

### 2.3.3.1 SEO analytics

**As of August 2016** the DB-BOB public web portal was visited a total of 512 times since its creation in March 2016, by a total of 375 different users. The site had a total of 1,128 page views, with an average of 2.20 pages per session and an average duration of 2:00 minutes. 66.8% are new visitors to the site, with 33.2% are returning users. The most popular country of origin for visitors is the UK with 271 (52.9%) of the sessions. Followed by Romania with 36 (7.6%), France with 33 (6.4%), Italy with 23 (4.5%) for instance. Google analytics also indicated that out of the total sessions 339 (85.4%) were completed from a desktop computer, 48 (12.1%) from a mobile, and 10 (2.5%) from a tablet.

## 2.4 WEB PORTAL MANAGEMENT

A series of protocols were designed to request an update on the web portal (see Table 1). These protocols include: length of the text, format of dates, copyright. They are designed to:

- Define roles and responsibilities;
- Optimise the times for publishing contents to avoid “ad hoc” requests;
- Standardise the layout of the web portal.

**Table 1. Roles and responsibilities for updating the web portal**

Role	Responsibilities
<b>Requestor (Any partner)</b>	Write and submit content to be published on the public web portal, submit all graphic content (images, videos), submit requests via email, get permissions (if third parties involved) to publish contents to avoid copyright infringements.
<b>Updater Teesside University responsible for the web site management</b>	Update the web portal every Friday. Copy edit content (i.e. edit for grammar, style etc.) Substantial editorial issues will be referred back to the submitting partner.

The updates to the web portal are recorded by Teesside University, which manages the website. Table 2 presents the updates from March to July.

**Table 2. Management timetable for the DB-BOB public web portal**

Date	Update
<b>March 2016</b>	A blog about the GM1 meeting
<b>April 2016</b>	Updating of the illustrations for the Romanian pilot site
<b>May 2016</b>	A blog for advertising for Energy Experts
<b>May 2016</b>	A blog about the presentation of a paper at the SmartGIFT 2016 conference
<b>June 2016</b>	Updating the DB-BOB animated video describing the goals of the project
<b>June 2016</b>	Updating the organisation logo for CSTB
<b>July 2016</b>	Addition of a blog about the GM2 meeting
<b>July 2016</b>	A blog about the Sustainable Places 2016 conference presentation and workshop
<b>July 2016</b>	Updating of the DB-BOB animated video
<b>August 2016</b>	Twitter feed embedded in DR-BOB web portal

### 3 DR-BOB DISSEMINATION TOOL KIT

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The dissemination tool kit developed in the DR-BOB project consists of the following materials:

- **A promotional video** which is a three minute animation describing the project's objectives and expected impact;
- **Two project leaflets** which are graphically eye-catching and concisely describe the project;
- **A project roll-up poster** to be used at industrial exhibitions and fairs, academic conferences, demos and site visits etc.;
- **A project Twitter account** to advertise dissemination activities as they occur and enable interested stakeholders follow the projects progression.
- **A project visualisation tool** to graphically communicate the DR-BOB demand response solution for blocks of buildings.

#### 3.1 PROMOTIONAL VIDEO

A three minute animated promotional video has been produced (see Figure 4). It concisely describes, in a fun and easily understandable manner, the project's objectives, solutions and the pilot sites at which the solutions will be demonstrated (see video script in Appendix 1).

The video is used for presentations at conferences, broadcasted on large screens at exhibitions etc. and it is available on the DR-BOB project public web portal ([www.dr-bob.eu](http://www.dr-bob.eu)).

Work is ongoing at the time of writing this report to make the animated video available in French, Italian and Romanian: So it can be fully exploited in dissemination activities in all of the countries in which the pilot sites are situated.



Figure 4. Screenshot of the DB-BOB promotional video

### 3.2 PROJECT LEAFLETS

The first project leaflet (Figure 5) is designed for academic/business stakeholders. It was finalised in June 2016 and is available to all project partners in PDF format. As of July 2016 roughly 150 copies of the first project leaflet have been printed and about one hundred have been disseminated. Key text from the academic/business leaflet is presented in Appendix 2.

At the time of writing this report a second leaflet is finalised. This leaflet is designed to inform the general public and the building occupants at the pilot sites about the DR-BOB project (Figure 6). This second leaflet will not only be produced in English but also in the languages of the countries in which the pilot sites are situated. Currently the leaflet has been translated into Italian and the other translations are ongoing. Key text from the second leaflet is presented in Appendix 2.

Both leaflets display the DB-BOB logo, title, the public web portal URL and a QR code linked to the DB-BOB project public web portal. It is anticipated that during the project's lifetime around one thousand hard copies of the leaflets will be printed. PDF copies are stored on the DR-BOB Project Collaboration platform to which all project partners' have access.



Figure 5. DB-BOB leaflet for academic/business stakeholders



Figure 6. DB-BOB leaflet for building occupants at the pilot sites/ general public

### 3.3 PROJECT ROLL-UP POSTER



A project roll-up poster has been produced (Figure 7). This poster is designed to be taken to relevant industrial exhibitions and fairs, conferences, demonstrations, site visits and workshops. Currently, it is on display at Teesside University. A PDF is also available to any partner that may want to reproduce the rollup poster.

The poster has already been displayed at the Sustainable Places Conference 2016 held in Anglet in France from 29<sup>th</sup> - July 1<sup>st</sup> 2016.

The poster contains the official acknowledgement to the Horizon 2020 programme, the project public web portal address and the corresponding QR code.

Figure 7 DB-BOB project roll up poster

### 3.4 PROJECT TWITTER ACCOUNT

A DB-BOB project Twitter account has been set up (@drbob\_eu) to promote the DR-BOB project and connect to other projects, researchers and stakeholders, particularly during dissemination events and conferences. Twitter is a microblogging platform circulating posts of 140 characters or less, photos, videos and URLs, connected to other users and topics by #hashtags (keywords).

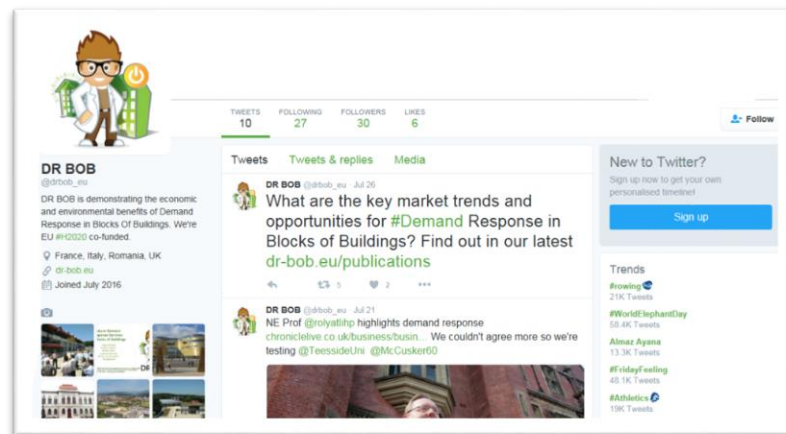


Figure 8. DB-BOB Twitter account

Tweets from the DR-BOB project Twitter account are also integrated into our website's home page with links to the Twitter account. To date we have sent 10 tweets introducing the project and have 30 followers including, inter alia, a H2020 official account, a professor in charge of a £20m energy innovation centre, and an EASME policy officer.



The DR-BOB project Twitter account is intended to complement the established social media feeds of the members of the project consortium as detailed Deliverable D6.3 Communication & Dissemination Planning & Execution Section 2.4.

### 3.5 PROJECT VISUALISATION TOOL

A visualisation tool to graphically communicate the DR-BOB demand response solution for blocks of buildings is under development at the time of writing this report (Figure 9). This interactive dynamic tool will aid the visualisation of the data flows between the different elements of DR-BOB Demand Response Energy Management Solution, plus its interaction with external networks and the wider social, market, regulatory and policy contexts. As such the visualisation tool will illustrate the data flow and interaction between:

- The tangible elements of the system in which the solution operates (i.e. power stations, energy grid, blocks of buildings and economic incentives etc.)
- The virtual elements system, or ICTs that enable DR-BOB technical solution (i.e. BMS, Virtual Energy Plant (VEP), local Energy Manager (LEM)).
- The primary stakeholders in the value chain for demand response in blocks of buildings
- The regulatory and policy context (i.e. the barriers and enablers to demand response in blocks of buildings).

It is intended that this tool will support the communications within the consortium in the first instance as part of the work of WP2 and WP3. It will then be fine-tuned to support communications with the stakeholders at the four pilot sites in WP4 and WP5. An edited version will be used for wider dissemination and made accessible via the DR-BOB public web portal as part of the work of WP6.

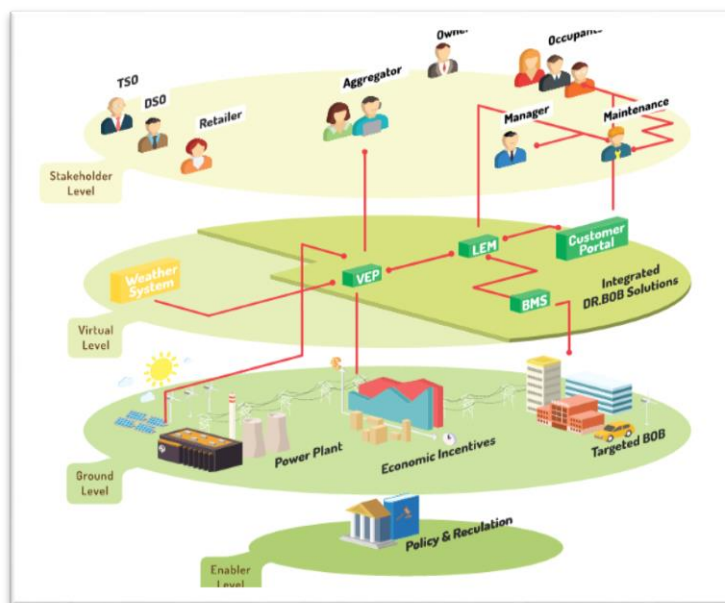


Figure 9. First draft of DB-BOB solution visualisation tool

## 4 CONCLUSIONS

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### 4.1 CONTRIBUTION TO OVERALL PICTURE

The promotional materials presented in this report provide the tools to enable the wide dissemination of the DR-BOB projects goals and outcomes.

### 4.2 IMPACT ON OTHER WPS AND TASKS

The promotional materials developed in Task 6.1 were informed by the wider work in the project. These dissemination materials will be used to effectively disseminate the objectives and outcomes of the project. How this will be achieved is detailed in the dissemination plan developed in Task 6.3 Communication and dissemination planning and execution. The dissemination tool kit is also augmented by the development of a list of the contact details of relevant stakeholders in Task 6.2 Development of a dissemination network. This will be used to promote the dissemination actions throughout the project's lifetime.

The development of the project visualisation tool is a horizontal activity which spans the work of WP2, WP3, WP4, WP5 and WP6. As the work progresses in the different work packages in DR-BOB project and deliverables are finalised task leaders will provide a synopsis of this work which will be presented in the blog on the public web. This includes both public and non-public deliverables.

### 4.3 CONTRIBUTION TO DEMONSTRATION

The promotional materials will be valuable to inform the stakeholders at the pilot sites of the aims and objectives of the project and follow its progress as part of the work WP4 Implementation. They will be particularly valuable in the following tasks:

- Task 4.2 Running the UK demonstration site
- Task 4.3 Running the French demonstration site
- Task 4.4 Running the Italian demonstration site
- Task 4.5 Running the Romanian demonstration site



## 5 APPENDICES

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### 5.1 APPENDIX 1: SCRIPT OF ANIMATED PROMOTIONAL VIDEO

Hello I am DR BoB and I am going to tell you about an innovation project called 'Demand response in blocks of buildings' which is co-funded by the European Commission under the Horizon 2020 funding programme.

The aim is to demonstrate the economic and environmental benefits of demand response in blocks of buildings.

Blocks of buildings can be hospitals, flats, offices; anywhere where there is a concentrated demand for energy.

So, what is the problem?

Well, utility companies have to generate enough energy to meet large peaks in demand caused by lots of people using energy at the same time.

Energy networks must also have the capacity to meet this demand.

Energy systems are inefficient and expensive, as most of the time, demand runs far below capacity.

As electric energy cannot be easily stored, the problem is most acute in the electricity sector.

Utilities have traditionally matched electricity demand and supply by controlling the rate of electricity generation.

Therefore, things are further complicated when we connect renewables to energy networks which produce energy when the sun shines or the wind blows, rather than when we need it.

The increasing popularity of electric cars may also increase peak demand as commuters plug them into electricity networks at the same time.

Blocks of buildings offer more flexibility in the timing of energy use, local energy generation and energy storage than single buildings do.

But a lack of suitable products and technologies make this problematic.

So, what is the solution to our problem you may ask?

Demand response programmes which encourage people to change when they use electricity or reduce their total energy use can help keep energy bills low and help integrate renewables into our existing energy networks.

Peak electricity demand can be reduced by;

- shifting when some electrical equipment is used,
- using electrical equipment more efficiently,
- using other types of energy;
- storing locally generated renewable electricity and using it during times of peak demand.

If we can reduce peak electricity demand we can reduce the investments required in electricity production and electricity networks. These savings can then be passed onto consumers in the form of lower energy bills.

The DR-BOB project will pilot the tools and techniques required for “demand response in blocks of buildings” with differing patterns of ownership, use and occupation at a number of sites including;

- Teesside University campus in Middlesbrough in the UK,
- A business and technology park in Anglet in France,
- A hospital complex in Brescia in Italy,
- The campus of the Technical University of Cluj Napoca in Romania.

DRBOB energy solutions for financially sustainable renewable energy system

## 5.2 APPENDIX 2: ACADEMIC/BUSINESS FLYER KEY TEXT

**Overview:** DR-BOB aims to demonstrate the economic and environmental benefits of demand response in blocks of buildings

**Problem:** Utility companies have to generate enough energy to meet large peaks in demand, caused by lots of people using energy at the same time. Energy networks must also have the capacity to meet this demand. Energy systems are inefficient and expensive as most of the time, demand runs far below capacity.

As electric energy cannot be easily stored the problem is most acute in the electricity sector. Utilities have traditionally matched electricity demand and supply by controlling the rate of electricity generation. Therefore things are further complicated when we connect renewables to energy networks which produce energy when the sun shines or the wind blows, rather than when we need it.

The increasing popularity of electric cars may also increase peak demand as commuters plug them into electricity networks at the same time. Blocks of buildings offer more flexibility in the timing of energy use, local energy generation and energy storage than single buildings. But a lack

**The solution:** Demand response programmes which encourage consumers to change when they use electricity or reduce their total energy use can help keep energy bills low and help integrate renewables into our existing energy networks. Peak electricity demand can be reduced by;

- shifting when some electrical equipment is used,
- using electrical equipment more efficiently,
- using other types of energy;
- storing locally generated renewable electricity and using it during times of peak demand.

If we can reduce peak electricity demand we can reduce the investments required in electricity production and electricity networks. These savings can then be passed onto consumers in the form of lower energy bills.

The DR-BOB project will pilot the tools and techniques required for demand response in blocks of buildings with differing patterns of ownership, use and occupation at;

- Teesside University campus in Middlesbrough in the UK,
- A business and technology park in Anglet in France,
- A hospital complex in Brescia in Italy,
- The campus of the Technical University of Cluj Napoca in Romania.

**Energy Management Solution:** The key functionality of the DR-BOB Demand Response energy management solution is based on the real-time optimisation of the local energy production, consumption and storage.

The optimisation will be adjusted to either maximise economic profit or to minimise CO2 emissions according to user requirements.

The solution will be intelligent in the sense that it is automated and can adapt to fluctuations in the energy demand or production, subject to dynamic price tariffs and changing weather conditions.

The DR-BOB solution will be implemented by integrating the following tools and technologies to provide an innovative scalable cloud based central management system, supported by a local real-time energy management solution which communicates with individual building management systems and generation / storage solutions within a block-of-buildings.

- · Virtual Energy Plant (VEP) – Siemens DEMS® & Siemens DRMS
- · Local Energy Manager (LEM) –Teesside University IDEAS project Product
- · Consumer Portal – GridPocket EcoTroks™

### 5.3 APPENDIX 3: GENERAL PUBLIC FLYER KEY TEXT

#### **Problem**

Large peaks in demand are caused by lots of people using electricity at the same time. As electricity cannot easily be stored this is a big problem.

Energy companies traditionally matched demand & supply by controlling the rate of electricity generation.

Because more and more of our renewables produce energy when the wind blows or the sun shines, rather than when we currently use it, this balance is becoming more difficult to achieve.

So we need to find better ways to integrate renewables into our existing energy networks.

The increasing popularity of electric cars may also increase peak demand if we all plug them in at the same time. This could make electricity more expensive

#### **So what's the solution?**

Demand response systems, which help us to use electricity at different times or reduce our total energy use, can smooth out peaks and reduce the need for investment in the network.

Blocks of buildings offer more flexibility in the timing of energy use, local energy generation & energy storage than single buildings do.

But a lack of integrated technologies and business approaches make demand response in blocks of buildings difficult.

The DRBOB project is integrating & testing the technologies and techniques required for “demand response in blocks of buildings” at:

- Teesside University campus in Middlesbrough in the UK
- A business & technology park in Anglet in France
- A hospital complex in Brescia in Italy
- The campus of the Technical University of Cluj-Napoca in Romania